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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,834	05/18/2005	Wolfgang Hermann	PD020033	6401

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PATENT OPERATIONS
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EXAMINER

BAUER, SCOTT ALLEN

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/511,834	Applicant(s) HERMANN ET AL.	
	Examiner Scott Bauer	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/19/04</u> , <u>5/18/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

2. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. **Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:
 - (a) TITLE OF THE INVENTION.
 - (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
 - (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
 - (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
 - (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
 - (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
 - (g) BRIEF SUMMARY OF THE INVENTION.
 - (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
 - (i) DETAILED DESCRIPTION OF THE INVENTION.
 - (j) CLAIM OR CLAIMS (commencing on a separate sheet).
 - (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
 - (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The applicant is requested to insert the appropriate section headings above each respective section of the specification.

Claim Objections

3. Claim 1 is objected to because of the following informalities: The phrase, "a transformer with a primary winding and an auxiliary winding for providing a supply voltage for the driver circuit" is objected to as it is unclear if both the primary and auxiliary winding are used to power the driver circuit or if just the auxiliary winding powers the driver circuit. For the purpose of this office action, it is assumed that only the secondary winding provides power to the driver circuit. Appropriate correction is required.

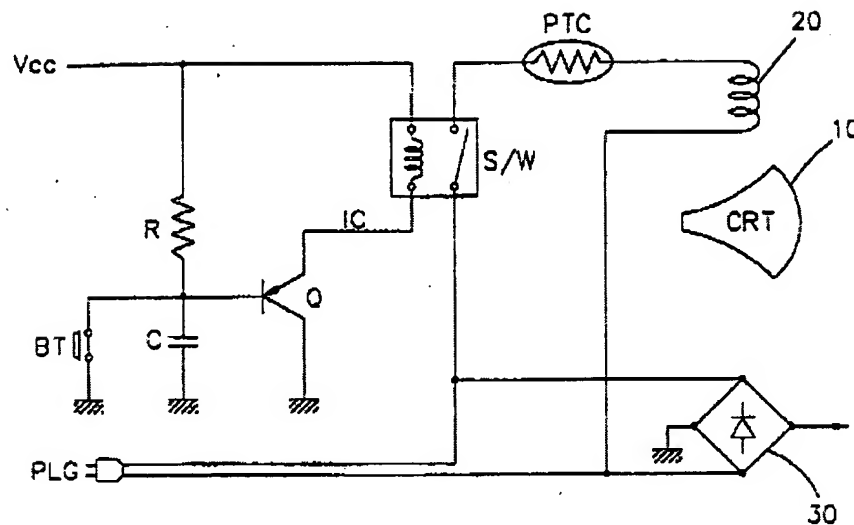
Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 & 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn (US 57422127) in view of Choo et al. (US 6674271) and further in view of Zak (US 5619404) and Kang et al. (US 5170096).

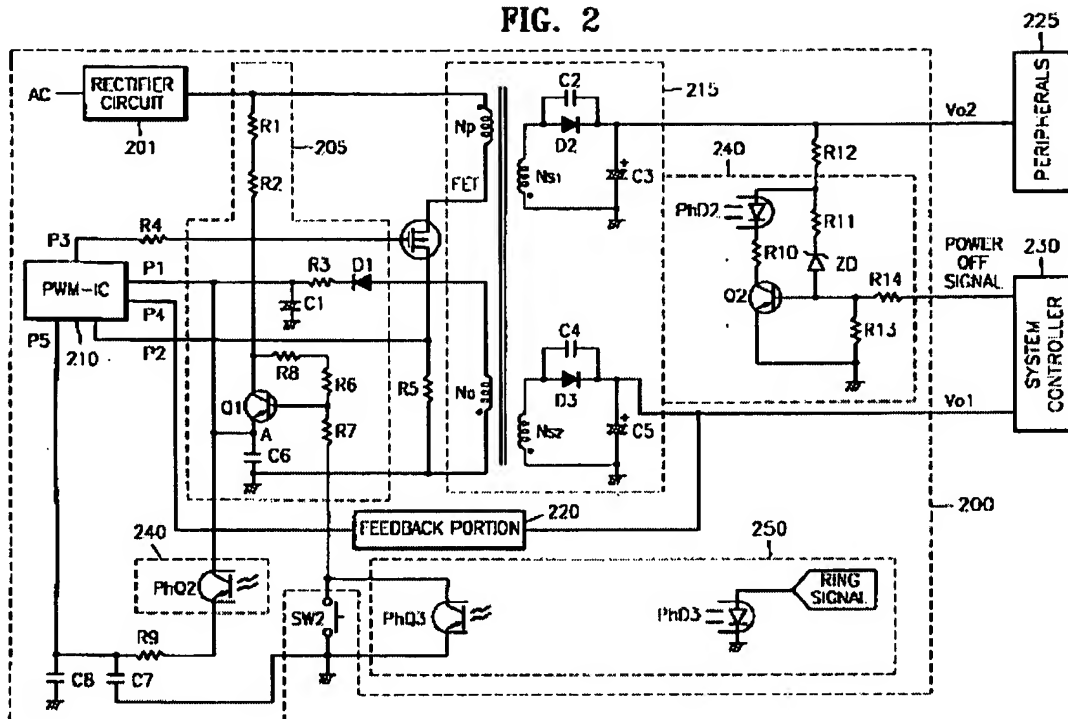
FIG. 1
CONVENTIONAL ART



6. With regard to Claims 1 & 6, Ahn, in Figure 1, teaches a degaussing system with a demagnification coil (20), and contacts (S/W) arranged between the mains connection (PLG) and the coil, and that the switch is controlled by a pushbutton (BT). Ahn further teaches that the mains line is connected to a rectifier (30).

Ahn does not teach that the degaussing circuit contains a switching power supply containing a transformer with primary and auxiliary windings, a switching transistor and a driving circuit to switch the transistor on and off.

FIG. 2

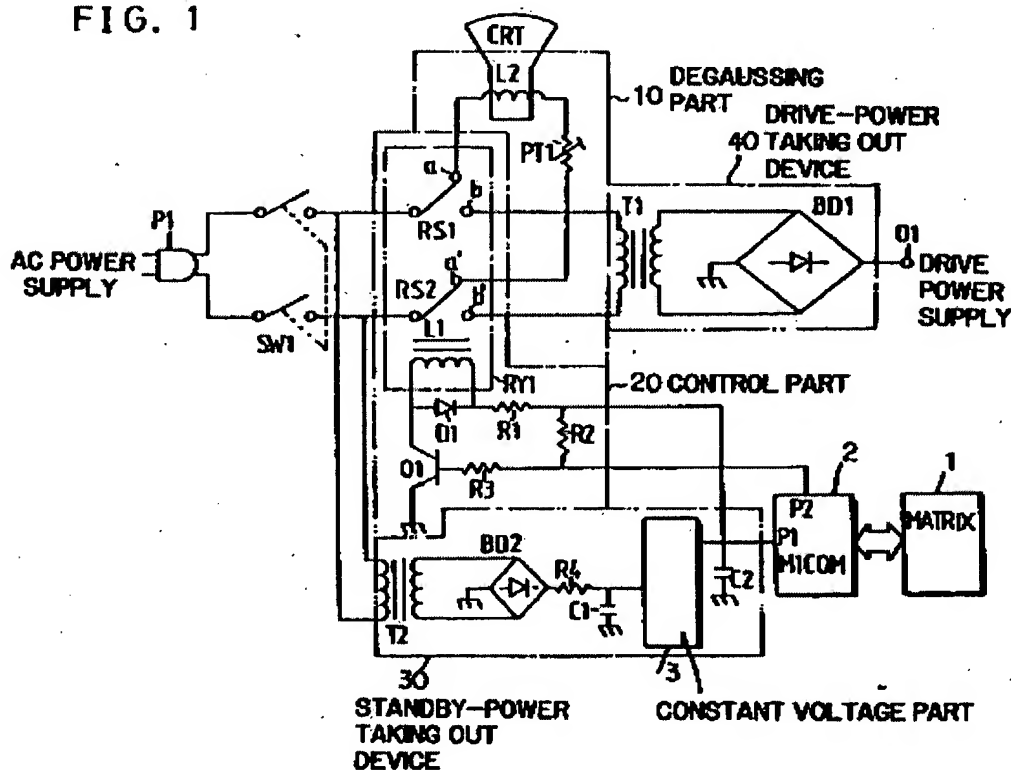


Choo et al., in Figure 2, teaches a switch mode power supply circuit wherein the circuit has a mains connection (AC) and a switch (SW2), and is comprised of a drive circuit (210), a transformer with a primary winding (Np) and an auxiliary winding (Na), wherein the auxiliary winding provides a supply voltage to the driver circuit. The power supply also includes a switching transistor (FET), driven by the driver circuit (210); the transistor is in series with the primary winding (Np). The circuit also contains a rectifier circuit (201) that rectifies the mains voltage. The circuit is turned on and off via a switching contact (SW2) which is arranged for switching off a control voltage for the driver circuit (210) in order to switch off the switching transistor (FET).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ahn with Choo et al. by placing the connecting a switching power supply to the degaussing circuit for the purpose of providing the CRT taught by Ahn with a power supply that consumes less power (Choo et al. column 1 lines 15-20).

7. Ahn in view of Choo et al. teaches the circuit as described above. Ahn in view of Choo et al. does not teach that a main switch with first and second contacts is used to apply power to the demagnetizing coil and the driver circuit.

FIG. 1



Kang et al, in Figure 1, teaches a degaussing circuit wherein the mains power is supplied to the switching power supply and degaussing coil when first and second contacts of the master switch (SW1) are closed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ahn in view of Choo et al. with Kang et al. for the purpose of saving production cost by replacing two separate buttons with one single button.

8. Ahn in view of Choo et al. and further in view of Kang et al. teaches the circuit as described above.

Ahn in view of Choo et al. and further in view of Kang et al. does not teach that an energy storage capacitor is coupled between the rectifier and the primary winding, or that a power factor coil is arranged between the mains connection and the energy-storage capacitor.

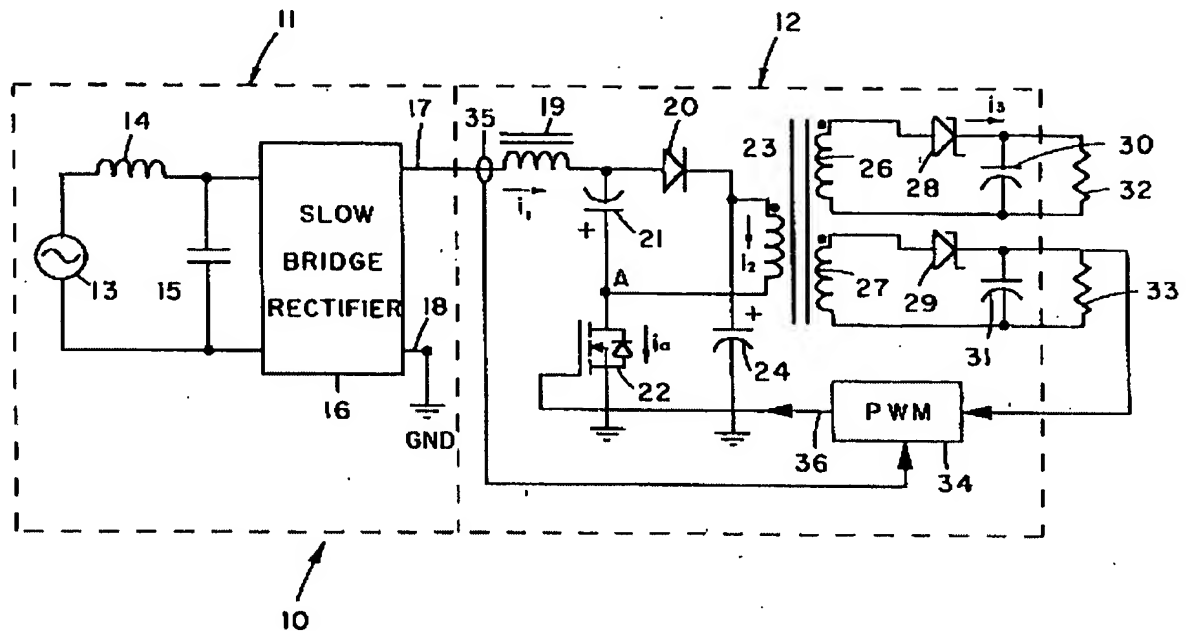


Fig. 2

Zak, in Figure 2, teaches a switching power supply with a high power factor containing an energy storage capacitor (24) coupled between the rectifier means (20) and primary winding (23). The circuit also contains a coil (19) for providing power factor correction, which is arranged between the mains connection (13) and the energy storage capacitor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ahn in view of Choo et al. and further in view of Kang et al. with Zak, by placing the power factor corrector circuit in series between the mains connection and primary windings for the purpose of providing a near unity power factor to the power supply (column 1 lines 5 & 6).

9. With regard to Claim 2, Choo et al., in Figure 2, further discloses that a diode (D1) and a second capacitor (C1) are coupled to a connection of the auxiliary winding (Na), and that the switching contact (SW2) is arranged in parallel between the second capacitor and the driving circuit through the transistor Q1.

10. With regard to Claim 3, Zak, in Figure 2, further discloses that the power factor coil (19) is arranged upstream of the rectifying means (20).

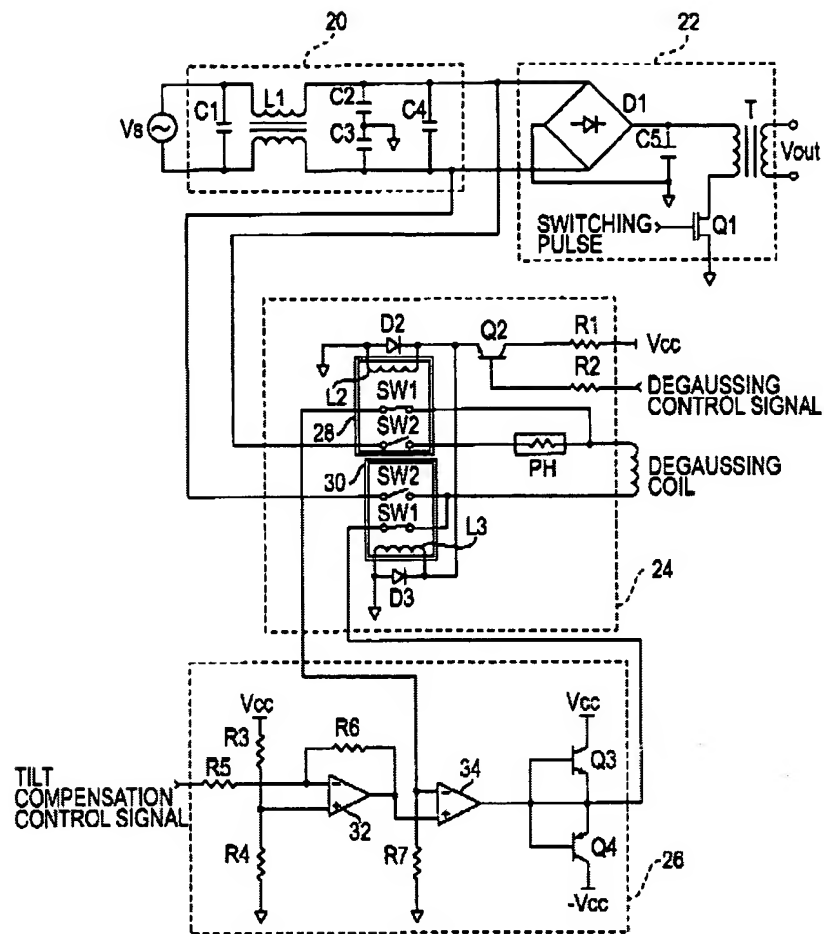
11. With regard to Claims 7 & 8, Ahn further discloses that the demagnetization coil is mounted on a cathode ray tube (CRT), which is a picture tube for an appliance (column 1 lines 7-11).

12. Claims 4 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn (US 57422127) in view of Choo et al. (US 6674271) and Zak (US 5619404), and further in view of Kang et al. (US 5170096) and Kim (US 5825131).

13. With regard to Claim 4, Ahn in view of Choo et al. and further in view of Zak and Kang et al. teaches the circuit as described above.

Ahn in view of Choo et al. and further in view of Zak and Kang et al. does not teach that a mains filter is connected between the mains connection and the switching power supply.

FIG. 2



Kim, in Figure 2, teaches a degaussing circuit with a switch mode power supply wherein a filter ($L1$, $C2$ & $C3$) is connected to the mains connection (V_s) and that a first parallel capacitor ($C1$) is coupled between the filter and the mains connection and that a second parallel capacitor ($C4$) is connected between the filter and a rectifying means ($D1$).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ahn in view of Choo et al. and further

in view of Zak and Kang et al. with Kim, by inserting the filter and parallel capacitors between the mains connection and demagnetization coil, for the purpose of cutting off an influx of noise associated with the AC power supplied from an external source through the AC line and an outflow of noise internally generated as well (column 3 lines 7-11). In the circuit of Ahn, Choo et al., Zak, Kang et al. and Kim, the demagnetization coil is arranged in parallel to the second capacitor and in parallel to the rectifier means and the connections of the first switching contact are connected in series between the second parallel capacitor and the demagnetization coil.

14. With regard to Claim 5, Ahn, in Figure 1, further discloses a posistor (PTC) in series between the switch (S/W) and the demagnetization coil (20). Kim, in figure 2, also teaches that a posistor (PH) is placed in series with a switch ((SW2) and a degaussing coil.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAB



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PRIMARY EXAMINER